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FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS' ENTERED AT  
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L1 8462 S PYRUVATE (A) CARBOXYLASE?  
L2 251716 S LYSINE  
L3 6837 S "C. GLUTAMICUM" OR "CORYNEBACTERIUM GLUTAMICUM"  
L4 459 S L1 AND L2  
L5 298 S L3 AND L4  
L6 6255940 S CLON? OR EXPRESS? OR RECOMBINANT  
L7 252 S L5 AND L6  
L8 4088644 S MUTANT OR DERIVATIVE?  
L9 76 S L7 AND L8  
L10 64 DUP REM L9 (12 DUPLICATES REMOVED)  
E SINSKEY A J/AU  
L11 753 S E3  
E LESSARD P A/AU  
L12 81 S E3  
E WILLIS L B/AU  
L13 31 S E3  
L14 802 S L11 OR L12 OR L13  
L15 1 S L10 AND L14

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MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004  
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=> s pyruvate (a)carboxylase?  
L1 8462 PYRUVATE (A) CARBOXYLASE?

=> s lysine  
L2 251716 LYSINE

=> s "c. glutamicum" or "corynebacterium glutamicum"  
L3 6837 "C. GLUTAMICUM" OR "CORYNEBACTERIUM GLUTAMICUM"

=> s l1 and l2  
L4 459 L1 AND L2

=> s l3 and l4  
L5 298 L3 AND L4

=> s clon? or express? or recombinant  
3 FILES SEARCHED...  
L6 6255940 CLON? OR EXPRESS? OR RECOMBINANT

=> s l5 and l6  
L7 252 L5 AND L6

=> s mutant or derivative?  
L8 4088644 MUTANT OR DERIVATIVE?

=> s l7 and l8  
L9 76 L7 AND L8

=> dup rem l9  
PROCESSING COMPLETED FOR L9  
L10 64 DUP REM L9 (12 DUPLICATES REMOVED)

=> d 1-64 ibib

L10 ANSWER 1 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
DUPLICATE 1

ACCESSION NUMBER: 2004-08783 BIOTECHDS  
TITLE: Producing L-lysine by fermenting L-lysine  
producing coryneform bacteria sensitive to  
4-hydroxydiaminopimelate, adding L-lysine in  
medium/bacterial cell, optionally isolating L-lysine  
/L-lysine-containing feedstuff additive;  
involving *Corynebacterium glutamicum*  
fermentation

AUTHOR: BATHE B; REYNEN C; PFEFFERLE W  
 PATENT ASSIGNEE: DEGUSSA AG  
 PATENT INFO: WO 2004013340 12 Feb 2004  
 APPLICATION INFO: WO 2003-EP7475 10 Jul 2003  
 PRIORITY INFO: DE 2002-1035029 31 Jul 2002; DE 2002-1035029 31 Jul 2002  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 OTHER SOURCE: WPI: 2004-157137 [15]

L10 ANSWER 2 OF 64 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2004:120993 HCAPLUS  
 DOCUMENT NUMBER: 140:162440  
 TITLE: Production of L-lysine using  
**Corynebacterium glutamicum**  
**mutants** resistant to diaminopimelic acid  
 analogs  
 INVENTOR(S): Bathe, Brigitte; Hans, Stephan; Pfefferle, Walter  
 PATENT ASSIGNEE(S): Degussa AG, Germany  
 SOURCE: PCT Int. Appl., 25 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004013341	A1	20040212	WO 2003-EP7474	20030710
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
DE 10235028	A1	20040219	DE 2002-10235028	20020731
US 2004067562	A1	20040408	US 2003-630740	20030731
PRIORITY APPLN. INFO.:			DE 2002-10235028	A 20020731
			US 2002-401751P	P 20020808

L10 ANSWER 3 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
 ACCESSION NUMBER: 2003-12754 BIOTECHDS  
 TITLE: Fermentative preparation of L-amino acids, by fermenting coryneform bacteria in which gene coding for trehalose phosphatase, maltooligosyl-trehalose synthase and/or maltooligosyl-trehalose trehalohydrolase is attenuated; vector-mediated gene transfer and **expression** in host cell for strain improvement and L-amino acid preparation  
 AUTHOR: WOLF A; SCHISCHKA N; HERMANN T; MORBACH S; KRAEMER R  
 PATENT ASSIGNEE: DEGUSSA AG  
 PATENT INFO: WO 2003014370 20 Feb 2003  
 APPLICATION INFO: WO 2002-EP5264 14 May 2002  
 PRIORITY INFO: DE 2001-1039062 9 Aug 2001; DE 2001-1039062 9 Aug 2001  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 OTHER SOURCE: WPI: 2003-278482 [27]

L10 ANSWER 4 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
 ACCESSION NUMBER: 2004-07909 BIOTECHDS

TITLE: New isolated polynucleotide encoding L-amino acids from coryneform bacteria, useful in human medicine and the pharmaceuticals industry, and particularly in animal nutrition;  
vector-mediated gene transfer and **expression** in host cell for strain improvement and L-amino acid preparation

AUTHOR: MOCKEL B; MARX A; PFEFFERLE W  
PATENT ASSIGNEE: MOCKEL B; MARX A; PFEFFERLE W  
PATENT INFO: US 2003166173 4 Sep 2003  
APPLICATION INFO: US 2002-139520 7 May 2002  
PRIORITY INFO: US 2002-139520 7 May 2002; US 2000-585642 2 Jun 2000  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2004-080335 [08]

L10 ANSWER 5 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2003-25369 BIOTECHDS  
TITLE: Preparing L-**lysine** or L-threonine by the fermentation of coryneform bacteria comprises fragmenting L-**lysine** or L-threonine producing bacteria where the endogenous gene that codes for transketolase (tkt) is over-**expressed**;  
vector-mediated gene transfer and **expression** in host cell for strain improvement and L-amino acid preparation

AUTHOR: BURKE K; DUNICAN L K; DUNCIAN R; MCCORMACK A; STAPLETON C; MOCKEL B; THIERBACH G  
PATENT ASSIGNEE: BURKE K; DUNICAN L K; DUNCIAN R; MCCORMACK A; STAPLETON C; MOCKEL B; THIERBACH G  
PATENT INFO: US 2003109014 12 Jun 2003  
APPLICATION INFO: US 2002-143856 14 May 2002  
PRIORITY INFO: US 2002-143856 14 May 2002; US 2000-528196 17 Mar 2000  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2003-708775 [67]

L10 ANSWER 6 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2003-21758 BIOTECHDS  
TITLE: Preparation of L-amino acids, especially **lysine**, useful e.g. in animal nutrition, comprises fermentation of coryneform bacteria with reduced activity of transport proteins;  
vector-mediated gene transfer and **expression** in host cell for strain improvement and L-amino acid preparation

AUTHOR: FARWICK M; BATHE B; BREHME J; SCHISCHKA N; PFEFFERLE W  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: DE 10163167 3 Jul 2003  
APPLICATION INFO: DE 2001-1063167 21 Dec 2001  
PRIORITY INFO: DE 2001-1063167 21 Dec 2001; DE 2001-1063167 21 Dec 2001  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
OTHER SOURCE: WPI: 2003-588873 [56]

L10 ANSWER 7 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2003-21755 BIOTECHDS  
TITLE: Preparation of L-amino acids, especially **lysine**, useful e.g. in animal nutrition, comprises fermentation of coryneform bacteria with reduced activity of C4-dicarboxylate transport protein;  
vector-mediated gene transfer and **expression** in host cell for strain improvement and L-**lysine** preparation

AUTHOR: BREHME J; SCHISCHKA N; MARX A  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: DE 10162650 3 Jul 2003  
APPLICATION INFO: DE 2001-1062650 20 Dec 2001  
PRIORITY INFO: DE 2001-1062650 20 Dec 2001; DE 2001-1062650 20 Dec 2001  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
OTHER SOURCE: WPI: 2003-588853 [56]

L10 ANSWER 8 OF 64 SCISEARCH COPYRIGHT (c) 2004 The Thomson Corporation. on STN

ACCESSION NUMBER: 2003:600337 SCISEARCH  
THE GENUINE ARTICLE: 699XM  
TITLE: Role of the Bacillus methanolicus citrate synthase II gene, citY, in regulating the secretion of glutamate in L-lysine-secreting mutants  
AUTHOR: Brautaset T; Williams M D; Dillingham R D; Kaufmann C; Bennaars A; Crabbe E; Flickinger M C (Reprint)  
CORPORATE SOURCE: Univ Minnesota, Inst Biotechnol, St Paul, MN 55108 USA (Reprint); Univ Minnesota, Dept Biochem Mol Biol & Biophys, St Paul, MN 55108 USA; Norwegian Univ Sci & Technol, Dept Biotechnol, N-7491 Trondheim, Norway  
COUNTRY OF AUTHOR: USA; Norway  
SOURCE: APPLIED AND ENVIRONMENTAL MICROBIOLOGY, (JUL 2003) Vol. 69, No. 7, pp. 3986-3995.  
Publisher: AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC 20036-2904 USA.  
ISSN: 0099-2240.  
DOCUMENT TYPE: Article; Journal  
LANGUAGE: English  
REFERENCE COUNT: 56

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L10 ANSWER 9 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
DUPLICATE 2

ACCESSION NUMBER: 2002-16323 BIOTECHDS  
TITLE: Novel mutated, feedback resistant **pyruvate carboxylase** enzyme polypeptide, useful for producing amino acids e.g. L-lysine, L-threonine, L-glycine, L-glutamic acid, L-proline and L-methionine and L-isoleucine; plasmid-mediated **recombinant** enzyme gene transfer and **expression** in Corynebacterium sp.

AUTHOR: HANKE P D  
PATENT ASSIGNEE: ARCHER-DANIELS MIDLAND CO  
PATENT INFO: WO 2002031158 18 Apr 2002  
APPLICATION INFO: WO 2000-US31893 13 Oct 2000  
PRIORITY INFO: US 2000-239913 13 Oct 2000  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2002-463267 [49]

L10 ANSWER 10 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
DUPLICATE 3

ACCESSION NUMBER: 2002-13028 BIOTECHDS  
TITLE: New protein kinase B, pknB gene from corynebacteria, useful as hybridization probe and overexpression of which gene in corynebacteria is useful for producing L-amino acids, in particular L-lysine;  
Corynebacterium sp. protein-kinase gene for use as a DNA probe or in production of L-lysine

AUTHOR: BATHE B; HANS S; FARWICK M; HERMANN T  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: WO 2002022828 21 Mar 2002  
APPLICATION INFO: WO 2000-EP10211 12 Sep 2000

PRIORITY INFO: DE 2001-1020095 25 Apr 2001  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2002-351892 [38]

L10 ANSWER 11 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-13587 BIOTECHDS  
TITLE: New polynucleotide from coryneform bacteria coding for dep67 gene, where overexpression of the gene provides improved production of L-amino acids particularly **L-lysine** in **Corynebacterium glutamicum**; plasmid vector-mediated **recombinant** protein gene transfer and **expression** in Escherichia coli, DNA primer, polymerase chain reaction, DNA microarray, DNA chip, DNA probe and fermentation for use in L-amino acid and **L-lysine** preparation  
AUTHOR: FARWICK M; HUTHMACHER K; HERMANN T; BATHE B; PFEFFERLE W  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: WO 2002027000 4 Apr 2002  
APPLICATION INFO: WO 2000-EP10942 27 Sep 2000  
PRIORITY INFO: DE 2000-1047866 27 Sep 2000  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2002-394241 [42]

L10 ANSWER 12 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-13335 BIOTECHDS  
TITLE: Polynucleotides from Coryneform bacteria, coding for the enzymatic cobalt reducing gene product cobW, involved in the biosynthesis of L-amino acids (e.g. **L-lysine**); plasmid pCR2.1cobWint-mediated **Corynebacterium glutamicum** protein gene transfer and **expression** in bacterium for enzyme **expression** reduction and enhancement for amino acid production  
AUTHOR: FARWICK M; HUTHMACHER K; SCHISCHKA N; PFEFFERLE W  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: WO 2002026992 4 Apr 2002  
APPLICATION INFO: WO 2000-EP8989 27 Sep 2000  
PRIORITY INFO: DE 2001-1017815 10 Apr 2001  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2002-372127 [40]

L10 ANSWER 13 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-13342 BIOTECHDS  
TITLE: New dead gene encoding polypeptide having activity of DNA/RNA helicase, useful in bacteria for the fermentative preparation of L-amino acids, particularly **L-lysine**, from glucose, molasses, starch, cellulose or ethanol; vector-mediated gene transfer and **expression** in Escherichia coli, glucose, sucrose, lactose, fructose, molasses, starch, cellulose, glycerol and ethanol fermentation and DNA microarray for use in **L-lysine** and L-amino-acid preparation  
AUTHOR: FARWICK M; HUTHMACHER K; BREHME J; PFEFFERLE W  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: WO 2002026787 4 Apr 2002  
APPLICATION INFO: WO 2000-EP10772 27 Sep 2000  
PRIORITY INFO: DE 2000-1047865 27 Sep 2000  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2002-394238 [42]

L10 ANSWER 14 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-13341 BIOTECHDS  
TITLE: New truB gene encoding polypeptide having activity of tRNA  
pseudouridine 55 synthase, useful in bacteria for  
fermentative preparation of L-amino acids, particularly L-  
**lysine**, from glucose, molasses, starch or ethanol;  
vector-mediated gene transfer and **expression** in  
Escherichia coli, glucose, sucrose, lactose, fructose,  
molasses, starch, cellulose, glycerol and ethanol  
fermentation, DNA microarray and DNA chip for use in L-  
**lysine** and L-amino-acid preparation  
AUTHOR: FARWICK M; HUTHMACHER K; PFEFFERLE W; BATHE B  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: WO 2002026786 4 Apr 2002  
APPLICATION INFO: WO 2000-EP10771 27 Sep 2000  
PRIORITY INFO: DE 2000-1047864 27 Sep 2000  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2002-394237 [42]

L10 ANSWER 15 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-15776 BIOTECHDS  
TITLE: Novel polynucleotide from Coryneform bacteria coding for PPGK  
gene, useful as hybridization probe for detecting DNA to  
isolate nucleic acids, polynucleotides or genes coding for  
transcription activator ppgK;  
**recombinant Corynebacterium**  
**glutamicum** production useful for L-amino acid  
production, especially L-**lysine** production  
AUTHOR: BATHE B; MARTENS M; HERMANN T  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: WO 2002026755 4 Apr 2002  
APPLICATION INFO: WO 2000-EP9784 26 Sep 2000  
PRIORITY INFO: DE 2000-1047403 26 Sep 2000  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2002-444014 [47]

L10 ANSWER 16 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-13374 BIOTECHDS  
TITLE: New isolated deformylase polypeptide encoding polynucleotide  
from coryneform bacteria which when present in attenuated  
form in L-**lysine** producing bacteria, results in  
increased fermentative production of L-**lysine**;  
**recombinant** enzyme gene, vector  
**expression** in host cell, fermentation for L-amino  
acid production  
AUTHOR: FARWICK M; HUTHMACHER K; BREHME J; PFEFFERLE W  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: WO 2002024922 28 Mar 2002  
APPLICATION INFO: WO 2000-EP8602 19 Sep 2000  
PRIORITY INFO: DE 2001-1013957 22 Mar 2001  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2002-394142 [42]

L10 ANSWER 17 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-13337 BIOTECHDS  
TITLE: Polynucleotide sequence encoding ndkA gene useful for  
preparation of L-amino acids e.g. L-**lysine**, and as  
hybridization probes for discovering RNA, cDNA and DNA to  
isolate genes encoding nucleotide diphosphate kinase;  
plasmid vector-mediated dihydrodipicolinate-synthase gene  
transfer and **expression** in Escherichia coli and



DNA microarray and DNA chip for use in L-lysine  
and L-amino-acid preparation

AUTHOR: BATHE B; BASTUCK C; MARX A; HERMANN T  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: WO 2002024880 28 Mar 2002  
APPLICATION INFO: WO 2000-EP10527 20 Sep 2000  
PRIORITY INFO: DE 2000-1046625 20 Sep 2000  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2002-394133 [42]

L10 ANSWER 18 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-12659 BIOTECHDS

TITLE: New ccsB gene of coryneform bacteria, useful when  
overexpressed for increasing fermentative production of  
L-amino acids, encodes a cytochrome c synthesis protein;  
vector-mediated gene transfer and **expression** in  
host cell for strain improvement and L-amino acid  
preparation

AUTHOR: FARWICK M; HUTHMACHER K; PFEFFERLE W; BATHE B; HERMANN T  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: WO 2002022672 21 Mar 2002  
APPLICATION INFO: WO 2000-EP9457 14 Sep 2000  
PRIORITY INFO: DE 2000-1045487 14 Sep 2000  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2002-329948 [36]

L10 ANSWER 19 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-12658 BIOTECHDS

TITLE: New pstC2 gene of coryneform bacteria, useful when suppressed  
for increasing fermentative production of L-amino acids,  
encodes a membrane-bound phosphate transporter protein;  
vector-mediated gene transfer and **expression** in  
host cell for strain improvement and L-amino acid  
preparation

AUTHOR: FARWICK M; HUTHMACHER K; PFEFFERLE W; BREHME J  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: WO 2002022671 21 Mar 2002  
APPLICATION INFO: WO 2000-EP9455 14 Sep 2000  
PRIORITY INFO: DE 2000-1045486 14 Sep 2000  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2002-329947 [36]

L10 ANSWER 20 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-12657 BIOTECHDS

TITLE: New sugA gene of coryneform bacteria, useful when suppressed  
for increasing fermentative production of L-amino acids,  
encodes a sugar transporter protein;  
vector-mediated gene transfer and **expression** in  
host cell for strain improvement and L-amino acid  
preparation

AUTHOR: FARWICK M; HUTHMACHER K; PFEFFERLE W; HERMANN T; MARX A  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: WO 2002022669 21 Mar 2002  
APPLICATION INFO: WO 2000-EP9164 14 Sep 2000  
PRIORITY INFO: DE 2001-1008839 23 Feb 2001  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2002-329946 [36]

L10 ANSWER 21 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-12656 BIOTECHDS

TITLE: New gorA gene of coryneform bacteria, useful when suppressed for increasing fermentative production of L-amino acids, encodes a glutathione reductase; vector-mediated gene transfer and **expression** in host cell for strain improvement and L-amino acid preparation

AUTHOR: FARWICK M; HUTHMACHER K; PFEFFERLE W; MARX A  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: WO 2002022666 21 Mar 2002  
APPLICATION INFO: WO 2000-EP9314 12 Sep 2000  
PRIORITY INFO: DE 2001-1009023 24 Feb 2001  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2002-329945 [36]

L10 ANSWER 22 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-13089 BIOTECHDS

TITLE: New Atr61 gene of Coryneform bacteria, useful when overexpressed, for increasing fermentative production of L-amino acids, encodes an ABC transporter protein; vector-mediated gene transfer and **expression** in host cell for strain improvement and L-lysine preparation

AUTHOR: FARWICK M; HUTHMACHER K; PFEFFERLE W  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: WO 2002022633 21 Mar 2002  
APPLICATION INFO: WO 2000-EP10522 15 Sep 2000  
PRIORITY INFO: DE 2000-1045579 15 Sep 2000  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2002-362328 [39]

L10 ANSWER 23 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-16222 BIOTECHDS

TITLE: Novel sahH gene from coryneform bacteria useful as probe to isolate genes coding for adenosyl homocysteinase, and overexpression of which gene in coryneform bacteria is useful for producing amino acids, e.g. L-lysine; plasmid-mediated enzyme gene transfer and **expression in Corynebacterium glutamicum** for L-methionine production

AUTHOR: FARWICK M; HUTHMACHER K; BREHME J; PFEFFERLE W; BINDER M; GREISSINGER D; THIERBACH G  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: WO 2002020806 14 Mar 2002  
APPLICATION INFO: WO 2000-EP8222 9 Sep 2000  
PRIORITY INFO: DE 2001-1009685 28 Feb 2001  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2002-463087 [49]

L10 ANSWER 24 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-13086 BIOTECHDS

TITLE: Novel polynucleotide from Coryneform bacteria coding for hisC2 gene, useful as hybridization probe for detecting DNA to isolate nucleic acids, polynucleotides or genes coding for transcription regulator hisC2; vector-mediated gene transfer, **expression** in host cell and DNA probe for strain improvement, L-amino acid preparation, DNA microarray or DNA chip construction and RNA, cDNA or DNA detection

AUTHOR: FARWICK M; HUTHMACHER K; BATHE B; PFEFFERLE W  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: WO 2002020771 14 Mar 2002

APPLICATION INFO: WO 2000-EP9037 9 Sep 2000  
PRIORITY INFO: DE 2001-1008838 23 Feb 2001  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2002-351778 [38]

L10 ANSWER 25 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-11965 BIOTECHDS  
TITLE: New polynucleotides isolated from coryneform bacteria coding for the clpC gene and a process for the fermentative preparation of amino acids using bacteria in which the clpC gene is attenuated;  
vector-mediated gene transfer and **expression** in **Corynebacterium glutamicum** host cell for strain improvement and L-amino acid preparation  
AUTHOR: FARWICK M; HUTHMACHER K; BATHE B; RIEPING M; PFEFFERLE W  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: WO 2002020574 14 Mar 2002  
APPLICATION INFO: WO 2000-EP9970 9 Sep 2000  
PRIORITY INFO: DE 2001-1036987 28 Jul 2001  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2002-281238 [32]

L10 ANSWER 26 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-11964 BIOTECHDS  
TITLE: New polynucleotides isolated from coryneform bacteria coding for the gpmB gene and a process for the fermentative preparation of amino acids using bacteria in which the gpmB gene is enhanced;  
vector-mediated gene transfer and **expression** in **Corynebacterium glutamicum** host cell for strain improvement and L-amino acid preparation  
AUTHOR: BATHE B; SCHROEDER I; PFEFFERLE W  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: WO 2002020573 14 Mar 2002  
APPLICATION INFO: WO 2000-EP9453 9 Sep 2000  
PRIORITY INFO: DE 2001-1033668 11 Jul 2001  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2002-281237 [32]

L10 ANSWER 27 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-12572 BIOTECHDS  
TITLE: New sigM gene from coryneform bacteria useful as probe to isolate genes which code for sigma factor M, and overexpression of which gene in coryneform bacteria is useful for producing amino acids, especially L-lysine;  
L-amino acid production by **Corynebacterium glutamicum** fermentation  
AUTHOR: BATHE B; BASTUCK C; FARWICK M; HERMANN T; PFEFFERLE W  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: WO 2002018599 7 Mar 2002  
APPLICATION INFO: WO 2000-EP9972 2 Sep 2000  
PRIORITY INFO: DE 2001-1036984 28 Jul 2001  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2002-315544 [35]

L10 ANSWER 28 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-12571 BIOTECHDS  
TITLE: New sigH gene from coryneform bacteria useful as a probe to isolate genes which code for sigma factor H, and overexpression of which gene in coryneform bacteria is useful

for producing amino acids, especially **L-lysine**;  
L-amino acid production by **Corynebacterium**  
**glutamicum** fermentation

AUTHOR: BATHE B; SCHROEDER I; RIEPING M; MARX A; FARWICK M; PFEFFERLE W; HERMANN T  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: WO 2002018598 7 Mar 2002  
APPLICATION INFO: WO 2000-EP9250 2 Sep 2000  
PRIORITY INFO: DE 2001-1033427 10 Jul 2001  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2002-315543 [35]

L10 ANSWER 29 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-12570 BIOTECHDS

TITLE: New citB gene from coryneform bacteria useful as a probe to isolate genes which code for the CitB protein, and attenuation of which gene in coryneform bacteria is useful for producing amino acids, in particular **L-lysine**;  
L-amino acid production by fermentation of bacterium **expressing** the transcription regulator citB protein

AUTHOR: MOECKEL B; HERMANN T; FARWICK M; PFEFFERLE W; MARX A  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: WO 2002018596 7 Mar 2002  
APPLICATION INFO: WO 2000-EP8387 31 Aug 2000  
PRIORITY INFO: DE 2001-1008841 23 Feb 2001  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2002-315542 [35]

L10 ANSWER 30 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-12653 BIOTECHDS

TITLE: New polynucleotide sequence encoding the sigC gene useful for preparation of L-amino acids e.g. **lysine**, and as hybridization probes for discovering RNA, cDNA and DNA to isolate genes which code for sigma factor C;  
L-amino acid production by fermentation of bacterium containing the sigma factor-C gene

AUTHOR: BATHE B; HANS S; FARWICK M; HERMANN T; PFEFFERLE W  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: WO 2002018589 7 Mar 2002  
APPLICATION INFO: WO 2000-EP9163 2 Sep 2000  
PRIORITY INFO: DE 2001-1033426 10 Jul 2001  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2002-315541 [35]

L10 ANSWER 31 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-12966 BIOTECHDS

TITLE: Novel isolated citA encoding polynucleotide from coryneform bacteria, useful as a probe, and which, when present in attenuated form in **L-lysine** producing bacteria, results in increased fermentative production of **L-lysine**;  
vector-mediated gene transfer and **expression** in host cell for strain improvement and L-amino acid preparation

AUTHOR: MOECKEL B; FARWICK M; HERMANN T; MARX A; PFEFFERLE W  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: WO 2002018427 7 Mar 2002  
APPLICATION INFO: WO 2000-EP7766 31 Aug 2000  
PRIORITY INFO: DE 2001-1008463 22 Feb 2001  
DOCUMENT TYPE: Patent

LANGUAGE: English  
OTHER SOURCE: WPI: 2002-362170 [39]

L10 ANSWER 32 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN

ACCESSION NUMBER: 2003-06013 BIOTECHDS

TITLE: New coryneform bacteria gene for subunit beta of RNA polymerase B, useful when overexpressed for increasing fermentative production of amino acids, also its mutants;

vector-mediated recombinant protein gene transfer and expression in host cell for use in food and as a food-additive

AUTHOR: MOECKEL B; BATHE B; HERMANN T; PFEFFERLE W; BINDER M  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: EP 1239040 11 Sep 2002  
APPLICATION INFO: EP 2002-2501 2 Feb 2002  
PRIORITY INFO: DE 2001-1062387 19 Dec 2001; DE 2001-1007229 16 Feb 2001  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
OTHER SOURCE: WPI: 2003-048323 [05]

L10 ANSWER 33 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN

ACCESSION NUMBER: 2002-19152 BIOTECHDS

TITLE: Novel Coryneform bacteria polynucleotide sequence of ilvE gene which codes for transaminase E, the expression of which is enhanced, particularly over expressed, for fermentative preparation of L-leucine, L-valine; recombinant transaminase-E production and gene transfer for strain improvement for L-leucine and L-valine production by fermentation

AUTHOR: BATHE B; BASTUCK C; TAUCH A; MCHARDY A  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: EP 1217069 26 Jun 2002  
APPLICATION INFO: EP 2000-128596 20 Dec 2000  
PRIORITY INFO: DE 2000-1063314 20 Dec 2000  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2002-550406 [59]

L10 ANSWER 34 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN

ACCESSION NUMBER: 2002-14541 BIOTECHDS

TITLE: New L-lactate dehydrogenase gene from coryneform bacteria, useful, when overexpressed, for increasing fermentative production of L-amino acid;

vector-mediated gene transfer and expression in host cell for strain improvement and L-lysine preparation

AUTHOR: FARWICK M; HUTHMACHER K; BATHE B; PFEFFERLE W  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: EP 1186657 13 Mar 2002  
APPLICATION INFO: EP 2000-117811 9 Sep 2000  
PRIORITY INFO: DE 2000-1044681 9 Sep 2000  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
OTHER SOURCE: WPI: 2002-282882 [33]

L10 ANSWER 35 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN

ACCESSION NUMBER: 2003-04181 BIOTECHDS

TITLE: New nucleic acid encoding ribosomal protein 12 of coryneform bacteria, useful, when overexpressed, for increasing fermentative amino acid synthesis;

vector-mediated gene transfer and expression in host cell for strain improvement and L-lysine preparation

AUTHOR: MOECKEL B; BATHE B; HANS S; KREUTZER C; HERMANN T; PFEFFERLE W; BINDER M  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: DE 10162386 29 Aug 2002  
APPLICATION INFO: DE 2001-1062386 19 Dec 2001  
PRIORITY INFO: DE 2001-1007230 16 Feb 2001; DE 2001-1007230 16 Feb 2001  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
OTHER SOURCE: WPI: 2002-714722 [78]

L10 ANSWER 36 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-16465 BIOTECHDS  
TITLE: New cysD, N, K, E and H genes from coryneform bacteria, useful, when over **expressed**, for increasing fermentative production of L-amino acids; vector plasmid pEC-XK99E-mediated **recombinant** protein gene transfer and **expression** in Escherichia coli for use in L-amino acid preparation and medicine, pharmaceutical and food industries

AUTHOR: FARWICK M; HUTHMACHER K; PFEFFERLE W; SCHISCHKA N; BATHE B  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: DE 10136986 21 Mar 2002  
APPLICATION INFO: DE 2000-1036986 3 Sep 2000  
PRIORITY INFO: DE 2001-1009691 28 Feb 2001  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
OTHER SOURCE: WPI: 2002-373165 [41]

L10 ANSWER 37 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-16464 BIOTECHDS  
TITLE: RodA genes from coryneform bacteria, useful, when overexpressed, for increasing fermentative production of L-amino acid, especially L-**lysine**; vector plasmid pEC-XK99E-mediated **recombinant** protein gene transfer and **expression** in Escherichia coli for use in L-amino acid preparation and medicine, pharmaceutical and food industries

AUTHOR: FARWICK M; HUTHMACHER K; BATHE B; PFEFFERLE W  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: DE 10132947 21 Mar 2002  
APPLICATION INFO: DE 2000-1032947 12 Sep 2000  
PRIORITY INFO: DE 2000-1044943 12 Sep 2000  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
OTHER SOURCE: WPI: 2002-373156 [41]

L10 ANSWER 38 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-16463 BIOTECHDS  
TITLE: New ftsX gene from coryneform bacteria, useful, when over **expressed**, for increasing fermentative production of L-amino acid, especially L-**lysine**; vector plasmid pEC-XK99E-mediated **recombinant** protein gene transfer and **expression** in Escherichia coli for use in L-amino acid preparation, medicine, pharmaceutical and food industries

AUTHOR: FARWICK M; HUTHMACHER K; BREHME J; RIEPING M; PFEFFERLE W  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: DE 10132176 21 Mar 2002  
APPLICATION INFO: DE 2000-1032176 12 Sep 2000  
PRIORITY INFO: DE 2000-1044944 12 Sep 2000  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
OTHER SOURCE: WPI: 2002-373154 [41]

L10 ANSWER 39 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2003-06530 BIOTECHDS  
TITLE: Improved production of L-amino acids in coryneform bacteria,  
useful particularly in animal nutrition, by reducing activity  
of malate-quinone oxidoreductase;  
mutant bacterium construction for strain  
improvement and amino acid preparation  
AUTHOR: FARWICK M; BATHE B; HERMANN T; MARX A; PFEFFERLE W  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: DE 10117816 17 Oct 2002  
APPLICATION INFO: DE 2001-1017816 10 Apr 2001  
PRIORITY INFO: DE 2001-1017816 10 Apr 2001; DE 2001-1017816 10 Apr 2001  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
OTHER SOURCE: WPI: 2003-076643 [08]

L10 ANSWER 40 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-14941 BIOTECHDS  
TITLE: New dep34 gene from coryneform bacteria, useful, when  
inactivated, for increasing fermentative production of  
L-amino acid, especially L-lysine;  
plasmid-mediated inactivated mutant gene  
transfer and expression in  
Corynebacterium glutamicum for use in  
food and pharmaceutical industry  
AUTHOR: FARWICK M; HUTHMACHER K; HERMANN T; BATHE B; PFEFFERLE W  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: DE 10112429 21 Mar 2002  
APPLICATION INFO: DE 2000-1012429 9 Sep 2000  
PRIORITY INFO: DE 2000-1044708 9 Sep 2000  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
OTHER SOURCE: WPI: 2002-316816 [36]

L10 ANSWER 41 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-15772 BIOTECHDS  
TITLE: New menE gene of coryneform bacteria, useful when suppressed  
for increasing fermentative production of L-amino acids,  
encodes an O-succinylbenzoic acid CoA-ligase;  
vector-mediated gene transfer and expression in  
host cell for strain improvement and L-lysine  
preparation  
AUTHOR: FARWICK M; HUTHMACHER K; PFEFFERLE W; MARX A  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: DE 10112106 28 Mar 2002  
APPLICATION INFO: DE 2000-1012106 20 Sep 2000  
PRIORITY INFO: DE 2000-1046624 20 Sep 2000  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
OTHER SOURCE: WPI: 2002-331278 [37]

L10 ANSWER 42 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2003-01018 BIOTECHDS  
TITLE: New trehalose-6-phosphate synthase gene from coryneform  
bacteria, useful, when suppressed for increasing fermentative  
production of amino acids, especially lysine;  
vector-mediated gene transfer and expression in  
host cell for strain improvement and amino acid  
preparation  
AUTHOR: HERMANN T; WOLF A; MORBACH S; KRAEMER R  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: DE 10110760 1 Aug 2002  
APPLICATION INFO: DE 2001-1010760 7 Mar 2001  
PRIORITY INFO: DE 2001-1003873 30 Jan 2001; DE 2001-1003873 30 Jan 2001

DOCUMENT TYPE: Patent  
LANGUAGE: German  
OTHER SOURCE: WPI: 2002-600944 [65]

L10 ANSWER 43 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-15771 BIOTECHDS

TITLE: New pepC gene of Coryneform bacteria, useful when suppressed,  
for increasing fermentative production of L-amino acids,  
encodes an aminopeptidase I;  
vector-mediated gene transfer and **expression** in  
host cell for strain improvement and L-lysine  
preparation

AUTHOR: FARWICK M; HUTHMACHER K; BATHE B; RIEPING M; PFEFFERLE W  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: DE 10108828 28 Mar 2002  
APPLICATION INFO: DE 2000-1008828 19 Sep 2000  
PRIORITY INFO: DE 2000-1046229 19 Sep 2000  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
OTHER SOURCE: WPI: 2002-331276 [37]

L10 ANSWER 44 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-15769 BIOTECHDS

TITLE: New dps gene of coryneform bacteria, useful when  
overexpressed, for increasing fermentative production of  
L-amino acids, encodes a DNA-protection protein;  
vector-mediated gene transfer and **expression** in  
host cell for strain improvement and L-lysine  
preparation

AUTHOR: BATHE B; KREUTZER C; RIEPING M; MARX A; FARWICK M; PFEFFERLE W  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: DE 10046623 28 Mar 2002  
APPLICATION INFO: DE 2000-1046623 20 Sep 2000  
PRIORITY INFO: DE 2000-1046623 20 Sep 2000  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
OTHER SOURCE: WPI: 2002-331127 [37]

L10 ANSWER 45 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-15768 BIOTECHDS

TITLE: New polynucleotide from coryneform bacteria, useful when  
overexpressed for increasing fermentative amino acid  
production, encodes sigma factor D;  
vector-mediated gene transfer and **expression** in  
host cell for strain improvement and L-lysine  
preparation

AUTHOR: BATHE B; KREUTZER C; MARTENS M; FARWICK M; HERRMANN T;  
PFEFFERLE W  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: DE 10043331 14 Mar 2002  
APPLICATION INFO: DE 2000-1043331 2 Sep 2000  
PRIORITY INFO: DE 2000-1043331 2 Sep 2000  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
OTHER SOURCE: WPI: 2002-316723 [36]

L10 ANSWER 46 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 2002-15767 BIOTECHDS

TITLE: New polynucleotide from coryneform bacteria, useful when  
weakened, for increasing fermentative amino acid production,  
encodes lipoic acid synthetase;  
vector-mediated gene transfer and **expression** in  
host cell for strain improvement and L-lysine



preparation

AUTHOR: MOECKEL B; PFEFFERLE W; BUCHHOLZ M  
 PATENT ASSIGNEE: DEGUSSA AG  
 PATENT INFO: DE 10042742 14 Mar 2002  
 APPLICATION INFO: DE 2000-1042742 31 Aug 2000  
 PRIORITY INFO: DE 2000-1042742 31 Aug 2000  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 OTHER SOURCE: WPI: 2002-316714 [36]

L10 ANSWER 47 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN

ACCESSION NUMBER: 2002-15766 BIOTECHDS

TITLE: New polynucleotide from coryneform bacteria, useful, when weakened, for increasing fermentative amino acid production, encodes lipoprotein ligase B;  
 vector-mediated gene transfer and **expression** in host cell for strain improvement and L-lysine preparation

AUTHOR: MOECKEL B; PFEFFERLE W; BUCHHOLZ M  
 PATENT ASSIGNEE: DEGUSSA AG  
 PATENT INFO: DE 10042739 14 Mar 2002  
 APPLICATION INFO: DE 2000-1042739 31 Aug 2000  
 PRIORITY INFO: DE 2000-1042739 31 Aug 2000  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 OTHER SOURCE: WPI: 2002-316713 [36]

L10 ANSWER 48 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN

ACCESSION NUMBER: 2002-11603 BIOTECHDS

TITLE: New phosphopentose isomerase gene from Coryneform bacteria, useful for transforming cells for improved fermentative production of L-amino acids, especially **lysine**;  
 vector-mediated gene transfer and **expression** in host cell for strain improvement and L-amino acid preparation

AUTHOR: SCHISCHKA N; MOECKEL B; PFEFFERLE W  
 PATENT ASSIGNEE: DEGUSSA AG  
 PATENT INFO: DE 10037612 14 Feb 2002  
 APPLICATION INFO: DE 2000-1037612 2 Aug 2000  
 PRIORITY INFO: DE 2000-1037612 2 Aug 2000  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 OTHER SOURCE: WPI: 2002-207239 [27]

L10 ANSWER 49 OF 64 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:658267 HCAPLUS

DOCUMENT NUMBER: 137:212013

TITLE: Protein and DNA sequence of Corynebacterium ribosomal protein S12 gene rpsL and its use in amino acid production with **recombinant** coryneform bacteria

INVENTOR(S): Moeckel, Bettina; Bathe, Brigitte; Hans, Stephan; Kreutzer, Caroline; Hermann, Thomas; Pfefferle, Walter; Binder, Michael

PATENT ASSIGNEE(S): Degussa A.-G., Germany

SOURCE: PCT Int. Appl., 56 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002066651	A2	20020829	WO 2002-EP573	20020122

WO 2002066651 A3 20030109  
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
DE 10162386 A1 20020829 DE 2001-10162386 20011219  
EP 1360298 A2 20031112 EP 2002-716672 20020122  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
BR 2002007284 A 20040210 BR 2002-7284 20020122  
US 2002155557 A1 20021024 US 2002-75460 20020215  
PRIORITY APPLN. INFO.: DE 2001-10107230 A 20010216  
DE 2001-10162386 A 20011219  
WO 2002-EP573 W 20020122

L10 ANSWER 50 OF 64 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2002:220795 HCAPLUS  
DOCUMENT NUMBER: 136:261906  
TITLE: Sequences of ptsI gene from corynebacteria and use thereof in production of L-lysine  
INVENTOR(S): Moeckel, Bettina; Hans, Stephan; Schischka, Natalie; Pfefferle, Walter  
PATENT ASSIGNEE(S): Degussa A.-G., Germany  
SOURCE: PCT Int. Appl., 56 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002022827	A1	20020321	WO 2001-EP10072	20010831
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10045496	A1	20020328	DE 2000-10045496	20000914
AU 2001089858	A5	20020326	AU 2001-89858	20010831
EP 1317549	A1	20030611	EP 2001-969679	20010831
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2002132323	A1	20020919	US 2001-950788	20010913
US 6680187	B2	20040120		
US 2003198991	A1	20031023	US 2003-460294	20030613
PRIORITY APPLN. INFO.:			DE 2000-10045496	A 20000914
			WO 2001-EP10072	W 20010831
			US 2001-950788	A3 20010913
REFERENCE COUNT: 3			THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT	

L10 ANSWER 51 OF 64 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2002:220607 HCAPLUS  
DOCUMENT NUMBER: 136:261897

TITLE: Sequences of pknD gene from corynebacteria and use thereof in production of L-lysine  
 INVENTOR(S): Bathe, Brigitte; Schroeder, Indra; Farwick, Mike; Hermann, Thomas  
 PATENT ASSIGNEE(S): Degussa A.-G., Germany  
 SOURCE: PCT Int. Appl., 46 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002022632	A2	20020321	WO 2001-EP10210	20010905
WO 2002022632	A3	20020613		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10120094	A1	20020328	DE 2001-10120094	20010425
AU 2001095539	A5	20020326	AU 2001-95539	20010905
EP 1317545	A2	20030611	EP 2001-976189	20010905
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2002039766	A1	20020404	US 2001-949971	20010912
PRIORITY APPLN. INFO.:			DE 2000-10044948	A 20000912
			DE 2001-10120094	A 20010425
			US 2001-297266P	P 20010612
			WO 2001-EP10210	W 20010905

L10 ANSWER 52 OF 64 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2002:522540 HCAPLUS  
 DOCUMENT NUMBER: 137:89444  
 TITLE: Use of ptsH gene of **Corynebacterium glutamicum** for L-lysine biosynthesis  
 INVENTOR(S): Farwick, Mike; Mockel, Bettina; Pfefferle, Walter  
 PATENT ASSIGNEE(S): Germany  
 SOURCE: U.S. Pat. Appl. Publ., 15 pp., Cont.-in-part of U.S. Ser. No. 755,187.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002090700	A1	20020711	US 2001-819930	20010329
US 2003224499	A9	20031204		
DE 10001101	A1	20010719	DE 2000-10001101	20000113
US 2002094554	A1	20020718	US 2001-755187	20010108
US 2004005675	A9	20040108		
PRIORITY APPLN. INFO.:			DE 2000-10001101	A 20000113
			US 2000-503189	B2 20000214
			US 2001-755187	A2 20010108

L10 ANSWER 53 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
 ACCESSION NUMBER: 2002-05524 BIOTECHDS

TITLE: A novel methodology employing **Corynebacterium glutamicum** genome information to generate a new L-lysine-producing mutant;  
vector **expression** in bacterium useful for producing industrial L-lysine and strain improvement

AUTHOR: OHNISHI J; MITSUHASHI S; HAYASHI M; ANDO S; YOKOI H; OCHIAI K; IKEDA M

CORPORATE SOURCE: Kyowa Hakko Kogyo Co Ltd

LOCATION: Ikeda M, Kyowa Hakko Kogyo Co Ltd, Tokyo Res Labs, Tokyo 1948533, Japan

SOURCE: APPLIED MICROBIOLOGY AND BIOTECHNOLOGY; (2002) 58, 2, 217-223  
ISSN: 0175-7598

DOCUMENT TYPE: Journal

LANGUAGE: English

L10 ANSWER 54 OF 64 SCISEARCH COPYRIGHT (c) 2004 The Thomson Corporation.  
on STN

ACCESSION NUMBER: 2002:215722 SCISEARCH

THE GENUINE ARTICLE: 526RD

TITLE: A novel methodology employing **Corynebacterium glutamicum** genome information to generate a new L-lysine-producing mutant

AUTHOR: Ohnishi J; Mitsuhashi S; Hayashi M; Ando S; Yokoi H; Ochiai K; Ikeda M (Reprint)

CORPORATE SOURCE: Kyowa Hakko Kogyo Co Ltd, Tokyo Res Labs, Tokyo 1948533, Japan (Reprint)

COUNTRY OF AUTHOR: Japan

SOURCE: APPLIED MICROBIOLOGY AND BIOTECHNOLOGY, (FEB 2002) Vol. 58, No. 2, pp. 217-223.  
Publisher: SPRINGER-VERLAG, 175 FIFTH AVE, NEW YORK, NY 10010 USA.  
ISSN: 0175-7598.

DOCUMENT TYPE: Article; Journal

LANGUAGE: English

REFERENCE COUNT: 30

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L10 ANSWER 55 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN  
DUPLICATE 4

ACCESSION NUMBER: 2001-12912 BIOTECHDS

TITLE: Novel polynucleotides;  
**recombinant** protein gene production,  
computer-based system and vector **expression** in  
host useful for point mutation detection and  
bioinformatics

AUTHOR: Nakagawa S; Mizoguchi H; Ando S; Hayashi M; Ochiai K; Yokoi H; Tateishi N; Senoh A; Ikeda M; Ozaki A

PATENT ASSIGNEE: Kyowa-Hakko

LOCATION: Tokyo, Japan.

PATENT INFO: EP 1108790 20 Jun 2001

APPLICATION INFO: EP 2000-127688 18 Dec 2000

PRIORITY INFO: JP 2000-280988 3 Aug 2000; JP 1999-377484 16 Dec 1999

DOCUMENT TYPE: Patent

LANGUAGE: English

OTHER SOURCE: WPI: 2001-376931 [40]

L10 ANSWER 56 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN

ACCESSION NUMBER: 2002-09727 BIOTECHDS

TITLE: New polynucleotides encoding glbO gene, useful as a primer for producing DNA of genes which code for the gene product of glbO, or as hybridization probes;  
vector-mediated gene transfer, **expression** in  
host cell, DNA probe and DNA primer for strain improvement

AUTHOR: MOECKEL B; MARX A; PFEFFERLE W  
PATENT ASSIGNEE: DEGUSSA AG  
PATENT INFO: WO 2001094569 13 Dec 2001  
APPLICATION INFO: WO 2000-EP4792 2 Jun 2000  
PRIORITY INFO: US 2001-813932 22 Mar 2001  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: WPI: 2002-171481 [22]

L10 ANSWER 57 OF 64 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN

ACCESSION NUMBER: 2001-10798 BIOTECHDS

TITLE: Production of L-**lysine** for human medicine and  
animal nutrition;  
incomplete cspl gene transfer to **Corynebacterium**  
**glutamicum** via electroporation using plasmid  
pK18mobsacB-DCspl

AUTHOR: Moeckel B; Pfefferle W; Brand S; Puehler A; Kalinowski J;  
Bathe B

PATENT ASSIGNEE: Dugussa-Huels

LOCATION: Frankfurt, Germany.

PATENT INFO: DE 19953809 10 May 2001

APPLICATION INFO: DE 1999-1053809 9 Nov 1999

PRIORITY INFO: DE 1999-1053809 9 Nov 1999

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: WPI: 2001-309421 [33]

L10 ANSWER 58 OF 64 SCISEARCH COPYRIGHT (c) 2004 The Thomson Corporation.  
on STN

ACCESSION NUMBER: 2001:691073 SCISEARCH

THE GENUINE ARTICLE: 466AH

TITLE: Characterization of the phosphoenolpyruvate carboxykinase  
gene from **Corynebacterium glutamicum**  
and significance of the enzyme for growth and amino acid  
production

AUTHOR: Riedel C; Rittmann D; Dangel P; Mockel B; Petersen S; Sahm  
H; Eikmanns B J (Reprint)

CORPORATE SOURCE: Univ Ulm, Dept Microbiol & Biotechnol, D-89069 Ulm,  
Germany (Reprint); KFA Julich GmbH, Forschungszentrum,  
Inst Biotechnol 1, D-52425 Julich, Germany; Degussa, Abt  
FA FE B, D-33790 Halle Saale, Germany

COUNTRY OF AUTHOR: Germany

SOURCE: JOURNAL OF MOLECULAR MICROBIOLOGY AND BIOTECHNOLOGY, (OCT  
2001) Vol. 3, No. 4, pp. 573-583.

Publisher: HORIZON SCIENTIFIC PRESS, PO BOX 1, NORFOLK,  
WYMONDHAM NR18 0JA, ENGLAND.

ISSN: 1464-1801.

DOCUMENT TYPE: Article; Journal

LANGUAGE: English

REFERENCE COUNT: 51

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L10 ANSWER 59 OF 64 MEDLINE on STN

DUPLICATE 5

ACCESSION NUMBER: 2001483537 MEDLINE

DOCUMENT NUMBER: PubMed ID: 11321586

TITLE: **Pyruvate carboxylase** is a major  
bottleneck for glutamate and **lysine** production by  
**Corynebacterium glutamicum**.

AUTHOR: Peters-Wendisch P G; Schiel B; Wendisch V F; Katsoulidis E;  
Mockel B; Sahm H; Eikmanns B J

CORPORATE SOURCE: Dept Microbiology and Biotechnology, University of Ulm,  
Germany.

SOURCE: Journal of molecular microbiology and biotechnology, (2001  
Apr) 3 (2) 295-300.

Journal code: 100892561. ISSN: 1464-1801.  
PUB. COUNTRY: England: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-Y09548  
ENTRY MONTH: 200108  
ENTRY DATE: Entered STN: 20010903  
Last Updated on STN: 20010903  
Entered Medline: 20010830

L10 ANSWER 60 OF 64 SCISEARCH COPYRIGHT (c) 2004 The Thomson Corporation.  
on STN

ACCESSION NUMBER: 2000:193325 SCISEARCH  
THE GENUINE ARTICLE: 289XN  
TITLE: Metabolic flux distributions in **Corynebacterium glutamicum** during growth and lysine overproduction (Reprinted from Biotechnology and Bioengineering, vol 41, pg 633-646, 1993)  
AUTHOR: Vallino J J (Reprint); Stephanopoulos G  
SOURCE: BIOTECHNOLOGY AND BIOENGINEERING, (20 MAR 2000) Vol. 67, No. 6, pp. 872-885.  
Publisher: JOHN WILEY & SONS INC, 605 THIRD AVE, NEW YORK, NY 10158-0012.  
ISSN: 0006-3592.  
DOCUMENT TYPE: Reprint; Journal  
FILE SEGMENT: LIFE; AGRI  
LANGUAGE: English  
REFERENCE COUNT: 89  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L10 ANSWER 61 OF 64 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN DUPLICATE 6

ACCESSION NUMBER: 97147233 EMBASE  
DOCUMENT NUMBER: 1997147233  
TITLE: **Pyruvate carboxylase** as an anaplerotic enzyme in **Corynebacterium glutamicum**.  
AUTHOR: Peters-Wendisch P.G.; Wendisch V.F.; Paul S.; Eikmanns B.J.; Sahm H.  
CORPORATE SOURCE: B.J. Eikmanns, Institut fur Biotechnologie, Forschungszentrum Julich, D-52425 Julich, Germany.  
b.eikmanns@kfa-juelich.de  
SOURCE: Microbiology, (1997) 143/4 (1095-1103).  
Refs: 46  
ISSN: 1350-0872 CODEN: MROBEO  
COUNTRY: United Kingdom  
DOCUMENT TYPE: Journal; Article  
FILE SEGMENT: 004 Microbiology  
029 Clinical Biochemistry  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L10 ANSWER 62 OF 64 SCISEARCH COPYRIGHT (c) 2004 The Thomson Corporation.  
on STN

ACCESSION NUMBER: 96:540057 SCISEARCH  
THE GENUINE ARTICLE: UX143  
TITLE: C-3-CARBOXYLATION AS AN ANAPLEROTIC REACTION IN PHOSPHOENOLPYRUVATE CARBOXYLASE-DEFICIENT **CORYNEBACTERIUM-GLUTAMICUM**  
AUTHOR: PETERSWENDISCH P G; WENDISCH V F; DEGRAAF A A; EIKMANNS B J (Reprint); SAHM H  
CORPORATE SOURCE: KFA JULICH GMBH, FORSCHUNGSZENTRUM, INST BIOTECHNOL 1, D-52425 JULICH, GERMANY (Reprint); KFA JULICH GMBH, FORSCHUNGSZENTRUM, INST BIOTECHNOL 1, D-52425 JULICH,

COUNTRY OF AUTHOR: GERMANY  
 SOURCE: GERMANY  
 ARCHIVES OF MICROBIOLOGY, (JUN 1996) Vol. 165, No. 6, pp. 387-396.  
 ISSN: 0302-8933.  
 DOCUMENT TYPE: Article; Journal  
 FILE SEGMENT: LIFE  
 LANGUAGE: ENGLISH  
 REFERENCE COUNT: 46

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L10 ANSWER 63 OF 64 SCISEARCH COPYRIGHT (c) 2004 The Thomson Corporation.  
on STN

ACCESSION NUMBER: 94:177461 SCISEARCH  
 THE GENUINE ARTICLE: MZ715  
 TITLE: EFFECTS OF PHOSPHOENOL **PYRUVATE-CARBOXYLASE** DEFICIENCY ON METABOLISM AND **LYSINE** PRODUCTION IN **CORYNEBACTERIUM-GLUTAMICUM**  
 AUTHOR: GUBLER M (Reprint); PARK S M; JETTEN M; STEPHANOPOULOS G; SINSKEY A J  
 CORPORATE SOURCE: HOFFMANN LA ROCHE AG, CH-4002 BASEL, SWITZERLAND (Reprint); MIT, DEPT BIOL, CAMBRIDGE, MA, 02139; MIT, DEPT CHEM ENGN, CAMBRIDGE, MA, 02139  
 COUNTRY OF AUTHOR: SWITZERLAND; USA  
 SOURCE: APPLIED MICROBIOLOGY AND BIOTECHNOLOGY, (FEB 1994) Vol. 40, No. 6, pp. 857-863.  
 ISSN: 0175-7598.  
 DOCUMENT TYPE: Article; Journal  
 FILE SEGMENT: LIFE; AGRI  
 LANGUAGE: ENGLISH  
 REFERENCE COUNT: 33

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L10 ANSWER 64 OF 64 SCISEARCH COPYRIGHT (c) 2004 The Thomson Corporation.  
on STN

ACCESSION NUMBER: 93:116039 SCISEARCH  
 THE GENUINE ARTICLE: KM970  
 TITLE: METABOLIC FLUX DISTRIBUTIONS IN **CORYNEBACTERIUM-GLUTAMICUM** DURING GROWTH AND **LYSINE** OVERPRODUCTION  
 AUTHOR: VALLINO J J; STEPHANOPOULOS G (Reprint)  
 CORPORATE SOURCE: MIT, DEPT CHEM ENGN, CAMBRIDGE, MA, 02139  
 COUNTRY OF AUTHOR: USA  
 SOURCE: BIOTECHNOLOGY AND BIOENGINEERING, (15 MAR 1993) Vol. 41, No. 6, pp. 633-646.  
 ISSN: 0006-3592.  
 DOCUMENT TYPE: Article; Journal  
 FILE SEGMENT: LIFE; AGRI  
 LANGUAGE: ENGLISH  
 REFERENCE COUNT: 89

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

=> e sinskey a j/au

E1	2	SINSKE S A/AU
E2	15	SINSKEY A/AU
E3	753 -->	SINSKEY A J/AU
E4	1	SINSKEY A L/AU
E5	7	SINSKEY AJ/AU
E6	10	SINSKEY ANTHONY/AU
E7	254	SINSKEY ANTHONY J/AU
E8	2	SINSKEY ANTHONY JOHN/AU
E9	2	SINSKEY ANTHONY S/AU

E10 1 SINSKEY ANTONY J/AU  
 E11 1 SINSKEY G N STEPHANOPOULOS AND A J/AU  
 E12 1 SINSKEY P E/AU

=> s e3

L11 753 "SINSKEY A J"/AU

=> e lessard p a/au

E1 1 LESSARD OSCAR J/AU  
 E2 223 LESSARD P/AU  
 E3 81 --> LESSARD P A/AU  
 E4 3 LESSARD P C/AU  
 E5 11 LESSARD P D/AU  
 E6 4 LESSARD P N/AU  
 E7 1 LESSARD P R/AU  
 E8 6 LESSARD PA/AU  
 E9 27 LESSARD PAUL/AU  
 E10 2 LESSARD PAUL C/AU  
 E11 1 LESSARD PAUL CHRISTIAN/AU  
 E12 4 LESSARD PETER D/AU

=> s e3

L12 81 "LESSARD P A"/AU

=> e willis l b/au

E1 37 WILLIS L A/AU  
 E2 2 WILLIS L A M/AU  
 E3 31 --> WILLIS L B/AU  
 E4 9 WILLIS L C/AU  
 E5 14 WILLIS L D/AU  
 E6 8 WILLIS L E/AU  
 E7 89 WILLIS L G/AU  
 E8 1 WILLIS L H/AU  
 E9 1 WILLIS L I/AU  
 E10 19 WILLIS L J/AU  
 E11 13 WILLIS L K/AU  
 E12 16 WILLIS L L/AU

=> s e3

L13 31 "WILLIS L B"/AU

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(FILE 'HOME' ENTERED AT 14:22:11 ON 25 OCT 2004)

FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS' ENTERED AT  
 14:22:40 ON 25 OCT 2004

L1 8462 S PYRUVATE (A) CARBOXYLASE?  
 L2 251716 S LYSINE  
 L3 6837 S "C. GLUTAMICUM" OR "CORYNEBACTERIUM GLUTAMICUM"  
 L4 459 S L1 AND L2  
 L5 298 S L3 AND L4  
 L6 6255940 S CLON? OR EXPRESS? OR RECOMBINANT  
 L7 252 S L5 AND L6  
 L8 4088644 S MUTANT OR DERIVATIVE?  
 L9 76 S L7 AND L8  
 L10 64 DUP REM L9 (12 DUPLICATES REMOVED)  
 E SINSKEY A J/AU  
 L11 753 S E3  
 E LESSARD P A/AU  
 L12 81 S E3  
 E WILLIS L B/AU  
 L13 31 S E3



=> s l11 or l12 or l13  
L14 802 L11 OR L12 OR L13

=> s l10 and l14  
L15 1 L10 AND L14

=> d all

L15 ANSWER 1 OF 1 SCISEARCH COPYRIGHT (c) 2004 The Thomson Corporation. on  
STN  
AN 94:177461 SCISEARCH  
GA The Genuine Article (R) Number: MZ715  
TI EFFECTS OF PHOSPHOENOL **PYRUVATE-CARBOXYLASE** DEFICIENCY  
ON METABOLISM AND **LYSINE** PRODUCTION IN **CORYNEBACTERIUM**  
**-GLUTAMICUM**  
AU GUBLER M (Reprint); PARK S M; JETTEN M; STEPHANOPOULOS G; **SINSKEY A**  
**J**  
CS HOFFMANN LA ROCHE AG, CH-4002 BASEL, SWITZERLAND (Reprint); MIT, DEPT  
BIOL, CAMBRIDGE, MA, 02139; MIT, DEPT CHEM ENGN, CAMBRIDGE, MA, 02139  
CYA SWITZERLAND; USA  
SO APPLIED MICROBIOLOGY AND BIOTECHNOLOGY, (FEB 1994) Vol. 40, No. 6, pp.  
857-863.  
ISSN: 0175-7598.  
DT Article; Journal  
FS LIFE; AGRI  
LA ENGLISH  
REC Reference Count: 33  
AB The phosphoenol **pyruvate carboxylase** gene (ppc) of  
**lysine**-producing **Corynebacterium glutamicum**  
and *C. lactofermentum* strains was inactivated by marker exchange  
mutagenesis. The **mutants** lacked completely phosphoenol  
**pyruvate carboxylase** (PEP carboxylase) activity, but  
grew in minimal medium containing glucose as the sole carbon source. In  
addition, the ppc(-) strains produced equivalent titers of **lysine**  
in shake flasks and in 10-l fermentation experiments as their parent  
strains. To address the question of how ppc(-) *Corynebacterium* strains  
generate oxaloacetate (OAA) for their own metabolism as well as for  
high-level **lysine** production, we measured the activities of  
enzymes leading to OAA synthesis. Whereas **pyruvate**  
**carboxylase** activity was not detected in any of the strains,  
phosphoenol pyruvate carboxykinase (PEP carboxykinase) activity was found  
to be significantly higher in *C. glutamicum* ppc  
**mutants** compared to the parent strains. On the other hand, PEP  
carboxykinase activity in *C. lactofermentum* was essentially absent. As  
glyoxylate cycle enzymes are strongly repressed by glucose, they are not  
likely to compensate for the lack of PEP carboxylase activity. PEP  
carboxykinase, among several candidates, could play this role.  
CC BIOTECHNOLOGY & APPLIED MICROBIOLOGY  
STP KeyWords Plus (R): BREVIBACTERIUM-FLAVUM; ESCHERICHIA-COLI;  
NUCLEOTIDE-SEQUENCE; MOLECULAR-**CLONING**; GENE; **MUTANTS**;  
RESISTANT; BIOSYNTHESIS; **EXPRESSION**; BACTERIUM  
RF 92-4812 001; PUTATIVE ANAEROBIC COPROPORPHYRINOGEN-III OXIDASE IN  
RHODOBACTER-SPHAEROIDES; TRANSCRIPTIONAL REGULATORY ELEMENT; FUNCTIONAL  
EXPRESSION

RE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)
COOMES M W	1985	164	646	J BACTERIOL
CREMER J	1991	57	1746	APPL ENVIRON MICROB
DIXON G H	1959	72	P 3	BIOCHEM J
EIKMANN B J	1989	218	330	MOL GEN GENET
HANAHAN D	1983	166	557	J MOL BIOL
JAGER W	1992	174	5462	J BACTERIOL

JETTEN M S M	1993	111	183	FEMS MICROBIOL LETT
KINOSHITA S	1985		115	BIOL IND MICROORGANI
KINOSHITA S	1978	2	209	ECON MICROBIOL
LIEBL W	1989	32	205	APPL MICROBIOL BIOT
MARTIN J F	1989		25	MICROBIAL PRODUCTS N
MEDINA V	1990	172	7151	J BACTERIOL
MORI M	1985	98	1621	J BIOCHEM-TOKYO
NAKATANI Y	1972	49	225	ANAL BIOCHEM
OREGAN M	1989	77	237	GENE
OZAKI H	1983	47	1569	AGR BIOL CHEM TOKYO
OZAKI H	1968	64	355	J BIOCH
OZAKI H	1969	66	297	J BIOCH
RIDDLES P W	1979	94	75	ANAL BIOCHEM
SAMBROOK J	1989			MOL CLONING LABORATO
SANO K	1987	51	597	AGR BIOL CHEM TOKYO
SANO K	1970	16	373	J GEN APPL MICROBIOL
SCHAFER A	1990	172	1663	J BACTERIOL
SCHRUMPF B	1992	37	566	APPL MICROBIOL BIOT
SCHWARZER A	1991	9	84	BIO-TECHNOL
SHIIO I	1990	54	3275	AGR BIOL CHEM TOKYO
SHIIO I	1978	84	647	J BIOCH
TOMIOKA N	1981	184	359	MOL GEN GENET
TOSAKA O	1979	43	1513	AGR BIOL CHEM TOKYO
VALLINO J J	1992	41	633	BIOTECHNOL BIOENG
VANDEROSTEN C H	1989	11	11	BIOTECHNOL LETT
YOKOTA A	1988	52	455	AGR BIOL CHEM TOKYO
YOSHIHAMA M	1985	162	591	J BACTERIOL

=> d his

(FILE 'HOME' ENTERED AT 14:22:11 ON 25 OCT 2004)

FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS' ENTERED AT 14:22:40 ON 25 OCT 2004

L1	8462 S	PYRUVATE (A) CARBOXYLASE?
L2	251716 S	LYSINE
L3	6837 S	"C. GLUTAMICUM" OR "CORYNEBACTERIUM GLUTAMICUM"
L4	459 S	L1 AND L2
L5	298 S	L3 AND L4
L6	6255940 S	CLON? OR EXPRESS? OR RECOMBINANT
L7	252 S	L5 AND L6
L8	4088644 S	MUTANT OR DERIVATIVE?
L9	76 S	L7 AND L8
L10	64 DUP REM	L9 (12 DUPLICATES REMOVED)
		E SINSKEY A J/AU
L11	753 S	E3
		E LESSARD P A/AU
L12	81 S	E3
		E WILLIS L B/AU
L13	31 S	E3
L14	802 S	L11 OR L12 OR L13
L15	1 S	L10 AND L14

	Issue Date	Pages	Document ID	Title
1	20030508	53	US 20030087381 A1	Metabolically engineered organisms for enhanced production of oxaloacetate-derived biochemicals
2	20030206	29	US 20030027305 A1	Pyruvate carboxylase from Corynebacterium glutamicum
3	20021128	21	US 20020177202 A1	Feedback-resistant pyruvate carboxylase gene from corynebacterium
4	20040224	258	US 6696561 B1	Corynebacterium glutamicum genes encoding proteins involved in membrane synthesis and membrane transport
5	20020924	32	US 6455284 B1	Metabolically engineered E. coli for enhanced production of oxaloacetate-derived biochemicals
6	20020611	29	US 6403351 B1	Pyruvate carboxylase polypeptide from Corynebacterium glutamicum
7	20010109	29	US 6171833 B1	Pyruvate carboxylase from corynebacterium glutamicum
8	19921229	12	US 5175108 A	Plasmids from corynebacterium glutamicum and plasmid vectors derived therefrom

	Issue Date	Pages	Document ID	Title
1	20030508	7	US 20030087400 A1	Process for the fermentative production of L-lysine using coryneform bacteria
2	20030206	29	US 20030027305 A1	Pyruvate carboxylase from Corynebacterium glutamicum
3	20040224	258	US 6696561 B1	Corynebacterium glutamicum genes encoding proteins involved in membrane synthesis and membrane transport
4	20020611	29	US 6403351 B1	Pyruvate carboxylase polypeptide from Corynebacterium glutamicum
5	20010109	29	US 6171833 B1	Pyruvate carboxylase from corynebacterium glutamicum
6	19980616	41	US 5766925 A	Method of producing L-lysine

	L #	Hits	Search Text
1	L1	805	pyruvate adj carboxylase
2	L2	35744 48	mak\$3 or manufactur\$3 or synthes\$3 or produc\$3
3	L3	830	corynebacterium adj glutamicum
4	L4	917	glutamicum
5	L5	917	13 or 14
6	L6	166	11 same 12
7	L7	66305	lysine
8	L8	36	16 same 17
9	L9	8	15 same 18
10	L10	25178	SINSKEY LESSARD WILLIS
11	L11	6	18 and 110